



NOAA Small Boat Safety Program Class I Annual Small Boat Evaluation Outline

- Annual Small Boat Evaluations (ASBE) are inspections conducted by Vessel Operations Coordinators (VOC), Commanding Officers (CO), or their designee(s) using the approved ASBE outlines and checklists.
- ASBE checklists have been condensed from detailed ASBE outlines for ease of use in the field. Evaluators shall use the checklists during the inspection, and shall refer to the outlines for additional detail as needed. Evaluators are responsible for all information contained within the ASBE outlines.
- ASBEs are required annually.
- The ASBE outlines and checklists are based on NAO 217-103, 46 CFR, 33 CFR, NFPA 302, MARPOL, ABYC standards and recommendations, USCG inspection criteria, and standard marine survey practices.
- Some items may not apply to all boats. Evaluators are responsible for determining applicable items. Consult NAO 217-103 for equipment carriage requirements. Installed equipment in excess of requirements must be maintained to inspection standards.
- Completed evaluation checklists, reports, and records of findings and recommendations shall be signed by the evaluator or surveyor, and signed and retained by the VOC with a copy forwarded to and signed by the LOSBO. Notification of the evaluation will be reported to the NOAA Small Boat Safety Program Coordinator (SBSPC). Reports shall be generated when numerous or significant deficiencies are noted, and then forwarded to the NMAO Fleet Inspection Office via the SBSPC.
- The NOAA Fleet Inspection office (757-441-6766) and Small Boat Engineer (757-441-6202, sbp.engineer@noaa.gov) are available for additional guidance.

I. Required Documentation

- A. Records of previous inspections.
- B. Stability log.
 - 1. Lists maximum capacity of the boat and the weight of typical equipment used for each mission.
 - 2. Record of equipment installations and associated stability impacts.
- C. Risk assessment.
- D. Operator's manual.
- E. Records of annual fire extinguisher servicing.

II. Stability

- A. Capacity plate is mounted at the transom or operating station.
 - 1. Capacity plate must list maximum capacity of the boat in pounds (includes cargo, engines, fuel, gear, and personnel). If not provided by

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manufacturer, consult 33 CFR 183 Subpart C for maximum capacity determination guidelines.

B. Combined weight of engine(s), fuel, installed equipment, cargo, gear, and personnel must not exceed maximum capacity.

III. Life Saving and Emergency Equipment

A. Life preservers (PFDs)

1. Refer to the NOAA PFD Policy for carriage requirements.
2. Check straps, snaps, and fabric for signs of wear and deterioration.
3. If CO₂ inflation type, check inflation mechanism and cylinder condition, status indicator, and expiry. Ensure spare cylinder(s) and arming kit are aboard. Bobbins and CO₂ cylinders shall be replaced according to manufacturer's recommendations and Coast Guard requirements.
4. If KAPOK type, check pliability.
5. Each PFD must be fitted with approved whistle and PFD lights. If chemical type, check expiry. If battery type, check battery expiry, lens, and seal.
6. Each PFD must have at least 31 square inches of retro-reflective material on front and back (when inflated for CO₂ PFDs).

B. Ring buoys and buoyant cushions

1. One 20" diameter ring buoy or buoyant cushion is required.
2. Verify free of cracks and weathering.
3. Vessel name stenciled on each.
4. Ensure properly mounted in racks for easy deployment.

C. Visual distress signals

1. Three day use and three night use Coast Guard approved visual distress signals are required. Three combination (day & night use) signals can satisfy this requirement. Approved signals consist of:
 - a. Red flares (hand held, day & night use)
 - b. Orange smoke signals (floating or hand held, day use only)
 - c. Meteor flares (day & night use)
 - d. Parachute flares (day & night use)
 - e. Electric distress lights (night use only, replaces 3 night use pyrotechnic devices)
 - f. Orange distress flags (day use only)
2. Pyrotechnics shall be unexpired and stamped with date of manufacture, service life, and expiry.
3. Pyrotechnics should be clean, dry, and in serviceable condition.
4. Pyrotechnics shall be stowed in a portable, watertight container.
5. Pyrotechnics must be USCG approved.

D. First aid and medical

1. Ensure first aid kit is adequate for type of operation and skill level of personnel expected to deliver aid.
2. Contents in good order and not expired.
3. Ensure "First Aid Kit" is stenciled on container.

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- 4. Ensure first aid kit is adequately stowed, visible, and readily available.
- E. EPIRB / PEPIRB (required when operating >2 nm from shore or support vessel)
 - 1. Check registration and battery expiry.
 - 2. Conduct operational test.
 - 3. Check hydrostatic release if mounted.
 - 4. Check regular inspection logs.
- F. Cellular or satellite phone (required when operating >2 nm from shore or support vessel)
 - 1. Check battery and conduct operational test.
- G. Emergency sound signaling device
 - 1. Ensure that an emergency sound signaling device (console horn, compressed air horn, etc.) is aboard and in good working condition.
 - 2. Sound signaling device should be capable of a 4-6 second blast audible for at least 0.5 nautical miles.
- H. Emergency oars or paddles
 - 1. One set in good working condition.
- I. Smoke and carbon dioxide detectors (not required, 1 each or combination unit recommended on boats with enclosed personnel spaces)
 - 1. Test operate, replace batteries if required.
- III. Fire Protection
 - A. Portable fire extinguishers (1 Type B-I required if boat has enclosed compartment)
 - 1. Verify documentation of annual servicing, or check charge gauge and date of expiry.
 - 2. Ensure extinguisher contents are not solidified.
 - 3. Approved type properly secured in appropriate location.
 - 4. Cylinder corrosion free.
 - 5. Discharge hose is flexible with no signs of wear or deterioration.
 - 6. Discharge nozzle is intact.
 - 7. Hydro test dates are current: within 5 yrs for CO₂, 12 yrs for dry chemical.
 - B. Fixed fire suppression system (not required)
 - 1. Verify current service report and/or expiry.
 - 2. All cylinders and flexible loops are within hydro requirement.
 - 3. Diffusers are clear of obstructions.
 - 4. Verify alarms and indicators are functioning correctly and are visible and/or audible from operator station.
 - 5. If installed, the manual activator (cable pull, etc.) is labeled.
 - 6. Operating instructions are posted.
 - 7. Cylinder brackets are fixed and in good condition.
 - 8. Cylinders are free of damage and corrosion.
 - C. Backfire flame arrestor and drip pan is installed on all gasoline engines (outboards excluded).
 - D. Structural fire protection

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1. Verify that no non-approved or unacceptable material has been used as a finish or covering in any space.
2. Fire resistant furnishings, flame resistant draperies, and rugs or carpets of 100% wool or man-made fiber that is USCG Class A fire retardant.

E. Fuel tank vents (required on integral tanks)

1. Vent line not holed or excessively corroded.
2. Flame screen or flame arrester is clean, in good condition, and firmly attached to the vent. Flame screen is a single screen of corrosion resistant 30 by 30 wire mesh, or two screens of 20 by 20 wire mesh spaced between 0.5 and 1.5 inches apart.
3. Adequate containment is available in case of vented fuel.

F. Ventilation (two ventilator ducts are required for every engine and fuel tank of decked over boats using fuels with a flashpoint <110° F. Such boats also require a powered bilge exhaust blower which has an arc resistant motor wired independently of the ignition system)

1. Ventilator ducts are fitted with cowls or equivalently protected, properly installed, and in good condition.
2. Appropriate bilge blower is properly installed and in good operating condition.

IV. Navigation and Electronic Equipment

A. Nautical charts

1. Open boats
 - a) One waterproof chart or chartlet covering the operations area is required.
2. Enclosed boats
 - a) One chart or chartlet covering the operations area is required.
3. Ensure chart edition and corrections are current.

B. Magnetic Compass (1 hand held bearing compass required)

1. In good operating condition.

C. Depth Sounder (not required, but recommended)

1. In good operating condition.

D. VHF Radio (1 required for operations up to 2 nm from shore or support vessel, 2 required for operations > 2 nm from shore or support vessel)

1. If installed on boat and purchased after 21 January 2003, VHF radio must be DSC capable.
 - a. DSC radios must have assigned MMSI.
2. Radio can receive NOAA NWS SAME weather reports
3. Capable of transmitting and receiving VHF FM Channels 13, 16, 22A.
4. Conduct radio checks.
5. VHF must be supplied by or contain batteries with three hour capacity.

E. Navigation Lights

1. Verify that navigation lights are operable and installed in accordance with current edition of USCG Navigation Rules.
2. Lights must be supplied by batteries with at least three hour capacity.

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- F. Electronic Positioning Equipment (GPS or LORAN required when operating outside protected bays, sounds, or rivers, see NAO 217-103)
 - 1. Conduct operational test.
 - 2. Check accuracy by comparing fix on the device to a charted location.
- V. Ground Tackle
 - A. Anchor (optional, see NAO 217-103)
 - 1. Inspect anchor and rode for damage and corrosion.
 - 2. Adequate for boat and operating area.
 - 3. Inspect chain locker, hawse pipes, and anchor platform.
 - B. Bits, chocks, cleats, fairleads, etc.
 - 1. Bits, chocks, cleats, fairleads, etc. are not excessively corroded or grooved.
 - 2. Cleat/bit horns are not missing, broken, or excessively grooved.
 - 3. Foundations are intact and sufficient.
 - 4. All guy wires are taut; wire rope is not wasted.
- VI. Hull, Deck, Fittings, Watertight Integrity
 - A. Hinged watertight doors
 - 1. Ensure knife edges are intact and not warped or corroded and do not have excessive paint buildup.
 - 2. Ensure gasket material is intact, continuous, and pliable.
 - 3. Ensure door closes completely around entire perimeter and that gasket makes contact with knife edge (chalk test as necessary).
 - 4. Examine hinges and hardware for condition, wear, fit, etc.
 - 5. Ensure that all dogs are operable and that grease fittings work.
 - 6. Check wedges on door frame for excessive wear and ensure adequate fit with dogs.
 - B. Watertight bulkheads
 - 1. Examine all watertight bulkheads to ensure they are intact and watertight. Foam flotation (if required & installed) is not waterlogged.
 - 2. Examine collision bulkhead ensuring it is intact and watertight.
 - 3. Ensure electrical cable and piping penetrations maintain watertight integrity and are kept to a minimum.
 - 4. Examine for signs of corrosion or deterioration.
 - 5. If sealant is used in penetrations, it must be a non-flammable product designed for such use.
 - C. Deck openings and thru-hulls
 - 1. Ensure all dogs are properly lubricated and operate freely.
 - 2. Ensure all gaskets are in place and clean.
 - 3. Ensure all knife edges are clean and free of nicks and paint.
 - 4. Ensure hinges and bolts are in good condition.
 - 5. Ensure dogging wedges are not excessively worn.
 - 6. Ensure all hatches have retaining devices.
 - 7. Examine and operate all thru-hulls.
 - 8. Ensure electrical cable and piping penetrations maintain watertight integrity and are kept to a minimum.

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9. If sealant is used in penetrations, it must be a non-flammable product designed for such use.

D. Water expulsion

1. Ensure self-bailers, scuppers, or free ports allow rapid clearing of water.
2. Ensure they are free of debris.
3. No modifications reduce required freeing port area.

E. Windows

1. Ensure all opening/closing mechanisms operate freely and all parts are in good condition
2. Ensure all windows are weather tight. Ensure gasket and/or grout material is in good condition.

F. Interior structure

1. Visually inspect interior hull. Pay close attention to water line and bilge.
2. Investigate any significant insets for internal damage.
3. Check for wastage around overboard discharges.
4. Visually examine accessible welds.
5. Examine beams, girders, interior keel attachments, and framing for fractured welds, fractures in structural members, wastage, excess corrosion, and distortion.

G. Deck fittings and equipment

1. Deck structures (storage boxes, etc.) in good condition.
2. Deck machinery (winches, J-poles, other weight handling gear, net reels, etc.) properly mounted and in good operating condition
3. J-poles, winches, and other weight handling gear must be marked with safe working load (SWL) and a current weight test plate shall be mounted nearby.
4. Verify rails are bolted or welded securely.
5. Verify rails are free of corrosion and sharp edges or cracks.

H. Metal hulls

1. Examine hull for wastage, pitting, and fractured weld seams.
2. Examine framing and stiffeners for fractured welds and separation from hull.
3. Note deformation and fractures.

I. RHIB sponsons

1. Examine tube material for damage (deep scratches, gouges, punctures, etc.)
2. Examine patches (mechanical, adhesive) and other repairs for integrity.
3. Inflate tubes to manufacturer's recommended PSI and check for pressure loss after adequate interval (several hours, length of typical work day, etc.).
4. Examine valve condition, operability, and integrity.

J. Fiberglass hulls

1. Examine fasteners for loose fit or wasted material.

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2. Examine laminate material for delamination due to impact or water intrusion. Note fractures at corners, and around fasteners and machinery mounts.

3. Examine extent of blistering and moisture content.

K. Additional inspection items

1. Keel bolts
2. Thru-hulls
3. Transducers
4. Strainers/scoops/screens
5. Grounding plate
6. Stabilizers

VII. Climate Control Equipment

A. Heaters

1. Verify installation will not come in contact with combustible materials, and is otherwise properly installed.
2. Verify heaters have a thermal shut off.
3. Verify heater elements are enclosed type and element case is corrosion resistant.
4. Verify equipment is in good working order.
5. Verify equipment has sufficient capacity.

B. Air conditioners

1. Verify equipment is properly installed and in good working order.
2. Verify equipment has sufficient capacity.

VIII. Propulsion System

A. Outboard engines

1. Inspect general engine condition, note damage, excessive oil, dirt, and corrosion.
2. Inspect all belts and filters. Filters should be replaced according to manufacturer's guidelines, or more frequently if needed, but at least annually. Filters should be marked with date of installation.
3. Check engine oil levels and condition.
4. Inspect propeller and lower unit for damage.
5. Engine horsepower must not exceed maximum on capacity plate.
6. Conduct successful operational test of propulsion system in forward and reverse gears across full operating range. All engine controls, gauges, indicators, and alarms operate normally. Throttle control has noticeable detent when shifted into neutral.

B. Stern drives (I/Os)

1. Inspect general engine condition, note damage, excessive oil, dirt, and corrosion.
2. Inspect all belts and filters. Filters should be replaced according to manufacturer's guidelines, or more frequently if needed, but at least annually. Filters should be marked with date of installation.
3. Check level and condition of engine, hydraulic, and transmission oil.

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4. Examine cooling system components, piping, hoses, clamps, fittings, belts, pulleys, etc. Check coolant level, ensure proper coolant mixture.
5. Inspect propeller and lower unit for damage.
6. Inspect boot for cracks, etc.
7. Inspect exhaust system for corrosion, leaks, wasted gaskets, loose, saturated, or missing lagging, and proximity to combustible materials.
8. Conduct successful operational test of propulsion system in forward and reverse gears across full operating range. All engine controls, gauges, indicators, and alarms operate normally.

IX. Fuel System

A. Integral tanks

1. Examine condition of fuel tanks, piping, fittings, hoses and support braces.
2. Ensure all fuel tanks and fill pipes are electrically bonded to a common ground.
3. All flexible nonmetallic hoses are of suitable type and double clamped.
4. Ensure method of determining the amount of fuel in each tank is appropriate.
5. Examine all vents and valves for obstructions and ensure proper operation
6. Check non-engine fuel filters. Filters should be replaced according to manufacturer's guidelines, or more frequently if needed, but at least annually. Filters should be marked with date of installation.

B. Portable tanks

1. Examine condition of fuel tanks, piping, fittings, hoses and support braces.
2. All flexible nonmetallic hoses are of suitable type and double clamped.
3. Ensure method of determining the amount of fuel in each tank is appropriate.
4. Examine all vents and valves for obstructions and ensure proper operation
5. Check non-engine fuel filters. Filters should be replaced according to manufacturer's guidelines, or more frequently if needed, but at least annually. Filters should be marked with date of installation.

X. Auxiliary equipment and systems

A. Steering system

1. Verify all foundations and all equipment mounting bolts are intact and secured properly.
2. Check piping systems and attachments, equipment securing brackets, protective guards, wire runs and cages, and other items prone to corrosion and vibration fatigue.
3. Inspect control linkages, linkage pins, and ram guides for wear.
4. Examine feedback devices, differential units, or other components that may cause single point failure and make sure they are in good condition.

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5. Ensure that all vital connections, pins, couplings and control linkages have securing devices, such as cotter pins or double-nut locking arrangements, to prevent loosening from heavy vibration.

B. Bilge system

1. Ensure the bilge system is capable of pumping from and draining any watertight compartment except for tanks which have acceptable means for filling and emptying independent of the bilge system.
2. Ensure all standing water drains to bilge suction pipes.
3. If the bilge system is equipped with strainers adequate means shall be made to ensure the strainers are unobstructed and in good condition.
4. Any remote reach rods controlling the bilge system should be operated and to ensure they are actually connected to the appropriate valve.
5. If installed, check oil/water separator filter. Filters should be replaced according to manufacturer's guidelines, or more frequently if needed, but at least annually. Filters should be marked with date of installation.
6. Test all bilge level alarms and float switches to make sure they operate properly.
7. Test operate bilge blowers if installed (required in gasoline engine boats with closed compartments).

XI. Electrical system

A. Wiring

1. Examine all cables and wires for signs of mechanical damage, jury rigs, dead end cables, splices, excess heat (melting, discoloration, charring, etc.), etc.
2. Examine cable and wire supports for corrosion or deterioration; supports should not cause chafing or other damage to the cable or wire.
3. Ensure portable cables and wires are used in appropriate situations and are not used in permanent applications.
4. Examine shore power connection and cable for mechanical damage, evidence of excess heat (melting, discoloration, charring, etc.) and corrosion.

B. Distribution equipment

1. A general overview of physical condition should be given to all switchboards, junction boxes, invertors, and panels. Examine source selector switches, breakers, and fuses. Ensure proper labeling.
2. All ground detection lights should be in working order and no grounds should be indicated.
3. Over current devices should be clearly and accurately identified.
4. Ensure each distribution point is adequately ventilated and protected from dripping or splashing water.
6. All instrumentation (meters) should be in good working order and calibrated.
7. All controls and meters should be clearly and accurately identified.
8. Drip shields should be present and in good physical condition.

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9. Ensure each distribution panel is adequately ventilated and protected from falling debris and dripping or splashing water.

C. DC system and batteries

1. Inspect battery condition, note physical damage, corrosion, etc.
2. Verify connections to battery terminals are secure, covered, and of the permanent type.
3. Examine battery trays to ensure serviceability. Verify lining or construction is of a material that is resistant to damage by electrolyte.
4. Test the ammeter connected in the charging circuit.
5. Verify ventilation is sufficient to dissipate the gases generated during charging.
6. Examine charging system, inverters, and all other system components.

D. AC system and generator

1. Inspect overall generator condition to include fluid levels, fuel supply, fuel filter, lubrication, and exhaust system.
2. Ensure generator is adequately ventilated and as dry as possible.
3. Verify the operation of the voltmeter and ammeter for each generator rated at 50 volts or more.
4. Verify the operation of the frequency measuring device for each AC generator.
5. Verify a nameplate containing the information required by Article 445 or Article 430 of the NEC is attached.
6. Verify each generator is protected by an over current device with a set value not exceeding 115% of full load rating.

E. Lighting system

1. Ensure each lighting fixture globe, lens or diffuser has a guard or is made of high strength material except in a location where it is not subject to damage.

F. Outlets

1. Ensure outlets are properly grounded and covered.

XII. Markings

- A. Boat has required markings in accordance with NAO 217-103.